B5 cont'd

The PCR primer RB 8:

5'GACAGAATGCCGAAATGA3' (SEQ ID NO:3) --

In the Claims.

Please cancel Claims 22-27 for the purposes of rewriting.

Please replace pending Claim 16 with the following rewritten claim:

SUB C1

16. (Amended) A method for separating single stranded nucleic acid from double stranded nucleic acid, comprising the steps of:

B6

contacting a mixture comprising both single stranded nucleic acid and double stranded nucleic acid with a first liquid comprising a chaotropic agent and a nucleic acid binding solid phase, wherein the first liquid has a composition such that the double stranded nucleic acid preferentially binds to the solid phase;

separating the solid phase from a supernatant containing the single stranded nucleic acid; and

treating the supernatant with a second liquid comprising a chaotropic agent and a second nucleic acid binding solid phase, wherein the second liquid has a composition such that the resulting mixture of supernatant and second liquid allows for binding of the single stranded nucleic acid material to the second solid phase, whereby the single stranded nucleic acid is isolated.

Please add the following new claims.

B7

SUB C2

36. (New) A method for separating single stranded nucleic acid from double stranded nucleic acid, comprising the steps of:

contacting a mixture comprising both single stranded nucleic acid and double stranded nucleic acid with a first liquid comprising a chaotropic agent and a nucleic acid binding solid phase, wherein the first liquid has a

composition such that the double stranded nucleic acid preferentially binds to the solid phase;

separating the solid phase from a supernatant containing the single stranded nucleic acid; and

treating the supernatant with a second liquid comprising a chaotropic agent, a chelating agent, and divalent positive ions and a second nucleic acid binding solid phase, wherein the second liquid has a composition such that the resulting mixture of supernatant and second liquid allows for binding of the single stranded nucleic acid material to the second solid phase, whereby the single stranded nucleic acid is isolated.

39. (New) The method according to Claim 38, wherein the concentration of the divalent positive ions is the same as the concentration of the chelating agent.

40. (New) The method according to Claim 38, wherein the chelating agent is EDTA and the ions are Mg^{2+} ions.

41. (New) The method according to Claim 38, wherein the chaotropic agent is a guanidinium salt.

42. (New) The method according to Claim 41, wherein the guanidinium salt is guanidinium isothiocyanate.

43. (New) The method according to Claim 42, wherein the second liquid has the constitution of a buffer prepared by dissolving about 120g guanidinium isothiocyanate in about 100ml 0.35M TRIS HCl (pH 6.4) and adding about 22ml 0.2 M EDTA (pH 8.0) and about 9.1g Triton X-100™ (polyethoxylated p-isooctyl-phenol), homogenizing the solution and adding $MgCl_2$ to a final concentration of about 0.25M.

SUB C3 B7 cancel

~~44~~. (New) A method for separating single stranded nucleic acid from double stranded nucleic acid, comprising the steps of:

contacting a mixture comprising both single stranded nucleic acid and double stranded nucleic acid with a first liquid comprising a chaotropic agent and a nucleic acid binding solid phase, wherein the first liquid has a composition such that the double stranded nucleic acid preferentially binds to the solid phase;

separating the solid phase from a supernatant containing the single stranded nucleic acid; and

treating the supernatant with a second liquid comprising a chaotropic agent, divalent positive ions and a second nucleic acid binding solid phase, wherein the second liquid has a composition such that the resulting mixture of supernatant and second liquid allows for binding of the single stranded nucleic acid material to the second solid phase, whereby the single stranded nucleic acid is isolated.